EXISTING SYSTEM

**I. Presentation of theme**

Cameroon’s cooking gas market has recently undergone a significant transformation. Despite these changes, the market still faces several challenges, particularly affecting domestic vendors and clients. To address these challenges, we propose a project with theme

THEME: Development of a Web-Based Application for Gas Bottle Purchase, Supply, and Delivery in Cameroon (CASE STUDY: Yaounde’).

DEFINITION OF TERMS:

1. Web-based Application: A software application that runs on a web server and is accessed through a web browser over the internet or an intranet.
2. Purchase: The act of acquiring goods or services in exchange for money. In this context, it refers to clients buying gas bottles through the web-based application.
3. **Supply**: The process of providing or distributing products to meet consumer demand. Here, it involves verified suppliers offering gas bottles for sale on the platform.
4. **Delivery**: The transportation of purchased goods from the supplier to the client. It ensures clients receive their ordered gas bottles through a network of vetted delivery personnel.

**II. STUDY OF THE EXISTING SYSTEM**

1. DELIMITATION OF THE FIELD OF STUDY

Our field of study is focused on the existing processes involved in the purchase, supply, and delivery of cooking gas bottles in Cameroon and Yaoundé in particular. It examines the manual methods of ordering gas, the interactions between clients, suppliers, and delivery personnel, as well as challenges such as fraud, pricing inconsistencies, and lack of communication.

Based on the analysis of this sector, our primary aim is to automate the process of purchase, supply, and delivery by creating a web application accessible to all actors in the sector (clients, suppliers, and delivery personnel) on any platform, as long as it has a browser and internet connection.

1. DESCRIPTION OF THE EXISTING SYSTEM

We noticed that the current system for gas bottle purchase, supply, and delivery in Cameroon, specifically in Yaoundé, relies heavily on manual interactions between clients, suppliers, and delivery personnel. Below illustrates our observation of how the process of purchase, supply and delivery works:

 Most gas bottle purchases are initiated when a client runs out of cooking gas.

 The customer either tries to locate a nearby supplier through friends or acquaintances familiar with the area, or they go directly to their regular supplier.

 The client typically hires a moto-taxi and takes their empty gas bottle to the retailer's location.

 Upon arrival, the client places their order, and the retailer checks if the requested gas bottle is available.

 If the bottle is available, the supplier prepares the order; if not, the client must search for another supplier in the hope of finding one nearby.

 After order preparation, the client pays for their order, and a swap occurs between the client’s empty bottle(s) and the retailer’s filled bottle(s).

 If the client has no empty bottles or wishes to switch brands, they pay an additional fee.

 The client collects the filled gas bottle and takes a moto-taxi back home.

 In some instances, the client places an order over the phone and either comes to collect it in person or arranges for a random moto-taxi or taxi driver to deliver the bottle to a specified location.

**III. CRITICISM OF THE EXISTING**

At the end of our information gathering concerning the process of purchase, supply, and delivery in Yaoundé, several criticisms have been identified that should not be overlooked. These criticisms include:

 Manualsearch for suppliers: Clients often struggle to find nearby gas suppliers, which is time-consuming and inconvenient, especially in urgent situations.

 Lackof price transparency: There is no standardized pricing system, leading to inconsistencies in gas prices from one supplier to another, putting clients at risk of overpaying.

 Limitedaccess to delivery services: In many cases, clients must transport their own gas bottles, which is inconvenient and adds unnecessary effort to the process.

 Poorcommunication: Lack of proper communication channels between clients, suppliers, and delivery personnel often results in delays and inefficiencies, causing frustration for clients.

**IV. PROBLEMATIC**

How can we improve the processes of purchasing, supplying, and delivering cooking gas bottles to ensure price transparency, better communication, automated supplier search, and access to reliable delivery services?

V. LIMITATIONS OF EXISTING SYSTEM AND PROPOSED SOLUTION S

In this section, we will explore the limitations(problems) in detail and propose solutions that can be implemented to address these challenges.

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| Problem | Consequences | Proposed Solution(s) |
| Client manually locate a nearby suppliers through friends or acquaintances familiar with the area. | * Increased transport costs * Time-consuming process * Inconvenience for the client | Develop a Web application that automatically suggests available suppliers within a 1-10 km radius based on the client's Google Map address. |
| Domestic Gas Bottle(s) not found in the nearby supplier. | * Client must travel further to find a supplier. * Increased time and transportation costs. | Develop a Web application that will facilitate the search for domestic gas bottles based on the type of gas bottle the client needs. |
| Illegal increase of price above the normal or legal price (price fraud) by suppliers | * Clients becomes a victim to price fraud. * Clients are overcharged. * Decreased trust in suppliers * Lack of price consistency across the market | Develop a Web application that will enable the creation and management of a gas price specification and ensure that suppliers adhere to this specification. |
| Limited or no access to Delivery services | * Client wastes time and energy since they have to transport the gas bottle themselves. * Increased transport costs due to varying prices for delivery. | Develop a Web application that will connect clients with a network of vetted delivery personnel, providing reliable and timely delivery services for gas bottles. |